

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. **(Currently Amended)** A method of editing layout of a child object associated with a parent object or container displayed on a video display by a computer system, the method comprising:

detecting, via an abstraction layer implemented as an instance of an abstraction layer class, a layout edit operation for the child object displayed on the video display by the computer system;

receiving a measure call to the parent object, wherein said measure call retrieves a set of constraints for the parent object, and an established measure parameter and an established arrange parameter of the child object;

determining if said established measure parameter and said established arrange parameter are valid;

when either of said established measure parameter and said established arrange parameter are set as invalid, determining if said established measure parameter is valid;

when said established measure parameter is valid, calling an arrange child helper routine to determine a final size for the child object, wherein said arrange child helper routine evaluates a set of constraints for the child object;

when said established measure parameter is invalid, calling a measure child helper routine to determine a desired size of said child object, wherein said measure child helper routine evaluates said set of constraints for the child object in respect to said set of constraints for the parent object; and

calling said arrange child helper routine to determine said final size for the child object.

~~determining from the child object and the parent object whether there exists one or more parameters associated with one of the child object and the parent object; and~~

~~if a parameter limitation exists in the one or more parameters, editing the layout of the child object in accordance with the parameter limitation through a method of the abstraction layer class.~~

2. (Cancelled)

3. (Currently Amended) The method of claim 1, wherein the determining operation further comprises:

determining a container type for the parent object ~~or container~~ in which the child object is displayed;

retrieving a said set of properties ~~constraints which may include a minimum or maximum height or width or an absolute size~~ related to the child object to be edited;

retrieving a said set of properties related to the parent object ~~container~~ in which the child object is displayed; and

recognizing any limitations that exist within ~~the sets~~ said set of properties of the parent object and said set of properties of the child object.

4. (Currently Amended) The method of claim 3, ~~wherein the editing layout of the child object further comprises~~ comprising:

determining whether ~~the one or more parameters~~ said set of constraints for the child object includes a maximum dimension; and

limiting adjustment of a dimension of the child object to less than or equal to ~~the said~~ maximum dimension if the maximum dimension is present.

5. (Currently Amended) The method of claim 3, ~~wherein the editing layout of the child object further comprises~~ comprising:

determining whether ~~the one or more parameters~~ said set of constraints for the child object includes a functional relationship between the child object and the parent object;

retrieving a reference size if ~~the said~~ functional relationship exists; and

calculating a new layout parameters for the child object based on ~~the said~~ functional relationship and said reference size.

6. (Currently Amended) The method of claim 3, ~~wherein editing the layout of the child object comprises~~ further comprising:

modifying one or more properties of the child object.

2 7. **(Currently Amended)** The method of claim 3, ~~wherein editing the layout of the child~~
~~object comprises further comprising;~~

modifying one or more properties of the parent object ~~or container.~~

2 8. **(Currently Amended)** A system for editing a layout of a child object displayed
within a parent container on a video display comprising:

a processor; and

4 a memory coupled with and readable by the processor and containing instructions that,
when executed by the processor, cause the processor to detect a layout edit operation request for
6 the child object displayed on the video display by the computer system, send an edit operation
request via an application program interface, via an abstraction layer implemented as an instance
8 of an abstraction layer class, to initiate a layout editing of the child object, receive a measure call
to the parent object to retrieve a set of constraints for the parent object, and an established
10 measure parameter and an established arrange parameter of the child object, wherein if either of
said established measure parameter and said established arrange parameter are set as invalid,
12 determining if said established measure parameter is valid, and if so, call an arrange child helper
routine to determine a final size for the child object, wherein said arrange child helper routine
14 evaluates a set of constraints for the child object, and when said established measuring parameter
is invalid, call a measure child helper routine to determine a desired size of said child object,
16 wherein said measure child helper routine evaluates said set of constraints for the child object in
respect to said set of constraints for said parent object, and then call said arrange child helper
18 routine to determine a final size for the child object. ~~determine whether the child object has one~~
~~or more parameter limitations, determine whether the parent container has one or more parameter~~
20 ~~limitations, and edit the child object layout through a method of the abstraction layer class based~~
~~on the one or more parameter limitations and the layout edit operation request detected.~~

9. **(Cancelled)**

2 10. **(Currently Amended)** The system of claim 8, ~~wherein one or more of the one or~~
~~more parameter limitations~~ said set of constraints for the child object includes a functional
relationship of size between the child object and the parent container.

11. (**Currently Amended**) The system of claim 10, wherein ~~the~~said functional
relationship is a proportional relationship between the child object and the parent container.

12. (**Currently Amended**) The system of claim 11, wherein said layout editing the
~~layout~~ of the child object comprises maintaining the proportional relationship between the child
object and the parent container.

13. (**Currently Amended**) The system of claim 8, wherein editing the child object
comprises modifying one or more layout properties of the parent container.

14. (**Currently Amended**) A machine-readable medium encoding a computer program
of instructions for editing objects displayed on a video display by a computer system, said
computer process comprising:

detecting, via an abstraction layer implemented as an instance of an abstraction layer
class, a layout edit operation for a child object displayed on the video display by the computer
system;

receiving a measure call to a parent object, wherein said measure call retrieves a set of
constraints for said parent object, and an established measure parameter and an established
arrange parameter of said child object;

determining if said established measure parameter and said established arrange parameter
are valid;

when either of said established measure parameter and said established arrange parameter
are set as invalid, determining if said established measure parameter is valid;

when said established measure parameter is valid, calling an arrange child helper routine
to determine a final size for said child object, wherein said arrange child helper routine evaluates
a set of constraints for said child object;~~determining from the child object and a parent container~~
~~displayed on the video display whether there exists one or more layout parameter limitations~~
~~associated with one of the child object and the parent container; and~~

when said established measure parameter is invalid, calling a measure child helper
routine to determine a desired size of said child object, wherein said measure child helper routine
evaluates said set of constraints for said child object in respect to said set of constraints for said
parent object; and

24 calling said arrange child helper routine to determine said final size for said child
~~object. editing a layout of the child object through a method of the abstraction layer class if a~~
~~limitation exists, and in accordance with the one or more layout parameter limitations.~~

2 15. **(Currently Amended)** The machine-readable medium of claim 14, wherein the
determining operation further comprises:

4 determining a container type for ~~the said parent object container~~ in which ~~the said~~ child
object is displayed;

6 retrieving a said set of layout parameters ~~constraints~~ which may include a minimum or
maximum height or width or an absolute size related to ~~the said~~ child object to be edited;

8 retrieving a said set of layout parameters ~~properties~~ related to ~~the said parent object~~
~~container~~ in which ~~the said~~ child object is displayed; and

10 recognizing any layout limitations that exist within ~~the sets~~ said set of layout
~~parameters~~ properties of said parent object and said set of properties of said child object.

2 16. **(Currently Amended)** The machine-readable medium of claim 14, wherein the
~~editing of the layout of the child object~~ computer process further comprises:

4 determining whether ~~the one or more layout parameter limitations~~ said set of constraints
for said child object includes a functional relationship between ~~the said~~ child object and said
parent ~~object~~ container;

6 retrieving a reference size if a said functional relationship exists; and

8 calculating a new layout parameters for ~~the said~~ child object based on ~~the said~~ functional
relationship and ~~the said~~ reference size.

17. **(Cancelled)**

2 18. **(Currently Amended)** The machine-readable medium of claim 14, wherein the
~~editing of the layout of the child object~~ computer process further comprises:

4 determining whether a layout limitation of ~~the said~~ child object is a proportional
relationship to ~~the said parent object container~~ and if so, maintaining ~~the said~~ proportional
relationship between ~~the a~~ layout of ~~the said~~ child object and ~~the said parent object~~ container.

2 19. **(Currently Amended)** The machine-readable medium of claim ~~17~~ 14, wherein the
~~editing of the layout of the child object~~ computer process further comprises:

modifying one or more properties of ~~the~~said child object in a said measure child helper
routine in the abstraction layer.

20. **(Currently Amended)** The machine-readable medium of claim ~~19~~14 wherein the
computer process further ~~comprising~~comprises:

modifying one or more properties of ~~the~~said child object in a said arrange child helper
routine in the abstraction layer consistent with one or more limitations in ~~the~~said parent
object~~container~~.